

Single particle spectra from the energy scan of p+p and Be+Be interactions in the SPS energy range

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The NA61/SHINE experiment studies the onset of deconfinement in strongly interacting matter by performing a two-dimensional scan of particle production in beam momentum (13A, 20A, 30A, 40A, 75A and 150A GeV/c) and system size (p43;p, 7Be43;9Be, Ar43;Sc, Xe43;La, Pb43;Pb).

In this contribution, single particle spectra of pions, kaons and protons produced in inelastic p43;p collisions and spectra of negatively charged pions produced in centrality selected Be43;Be reactions will be presented. The energy dependence of observables sensitive to deconfinement and inspired by the Statistical Model of the Early Stage (kink, horn and step) already show interesting behaviour in p43;p collisions, which is not described by the Monte-Carlo models. The Be43;Be data indicate presence of collective effects. Influence of isospin effects will also be discussed based on the comparison between p43;p and Be43;Be data.

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